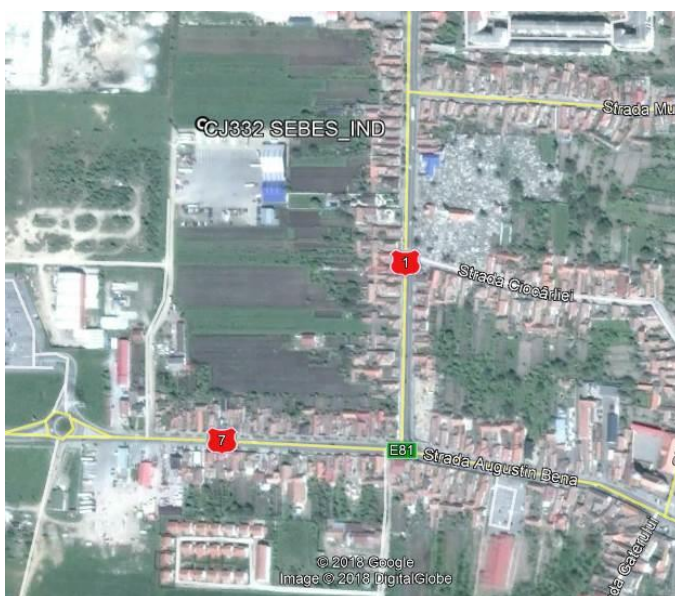
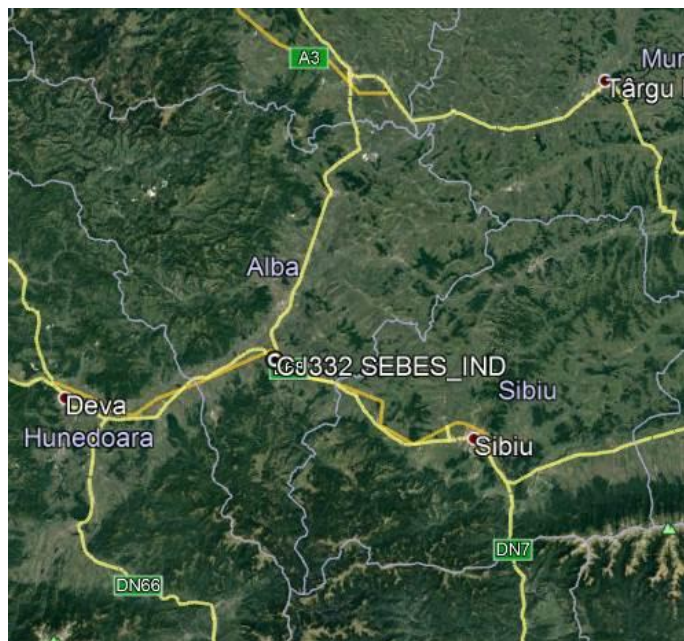




SITE SURVEY REPORT Ericsson

1. GENERAL INFORMATION

Site name:	SEBES_IND
Site number (code):	CJ332
Site address (city;street;no.; building; entrance):	Parcela 3654/1/1/2 Loc. Sebes Jud. Alba
Site area:	Alba
Site survey team:	ATS
Checked by:	Luca Valentin
Date of site survey:	06.02.2018
Type of Site (urban, rooftop):	Greenfield
Lesser:	-
Contact Person:	-



Other Remarks:	Cheile se iau de la sediul Ericsson din SIBIU.
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2. ROOFTOP (Building information)

GPS coordinates:	N E
Building height:	m
Existent tripod:	Yes ☐ NO ☐
Total height:	m
Use of crane for materials transportation:	Yes ☐ NO ☒

Other Remarks:	
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3. GREEN FIELD (Specific data information)

GPS coordinates:	N 45° 57' 45.8"	
	E 23° 33' 15.9"	
Tower:	Yes ☒ NO ☐	
Tower type:	☒ Heavy Cosmosite tower – 50m (or more) ☐ Polygonal Monopole – 30m (or more) ☐ Monopole lattice tower-30m ☐ Guyed tower on shelter-30m	
Antenna Metallic Structure:	New "H" Yes ☐ NO ☒ Upgrade existing "H" Yes ☐ NO ☒ Atypical Structure Yes ☐ NO ☒	
RRU Metallic Structure:	New RRU Support Yes ☐ NO ☒ Atypical Structure Yes ☐ NO ☒	
Mini - shelter require:	Yes ☐ NO ☒	
Mini – shelter frame standard adaptor solution:	Yes ☐ NO ☒	
In case Non Standard Mini-shelter frame solution, dimensions are requested:	N/A	
Non standard mini - shelter frame profile	N/A	
RRU to Antenna/Combiner Jumper length (type: DIN7/16 Male –N Male):	18x3m + 8x2m;	
Antenna to Combiner -> Jumper length (type: DIN7/16 Male – DIN7/16 Male):	N/A	
FO cable length between BB to RRU	12x5m	
DC cable length between PP to RRU	12x5m	
Type and length of DC power for RRU Cu 2x6 mm ² (L<30m):	Type Cu 2x6mm ² / 12x5m	
Type and length of DC power for RRU Cu 2X10 mm ² if needed(30m<L<60m):	-	
Type and length of DC power for RRU Cu 2X16 mm ² if needed(60m<L<90m):	-	
Type and length of DC power for RRU Cu 2X25 mm ² if needed(L>90m):	-	
Combo Box required:	Yes ☐ NO ☒ ; Length of cable: m	
Connection patch length from CB to RRU (FO&DC)	12x5m	
Outdoor CB existing breakers type	16A ☐ 25A ☐ Oth. ☐ 32A	
PDU existing breakers availability (63A in PP)	Yes ☐ NO ☒	
DC cable length from PP to new PDU	1x10m	
PP Type / producer plus picture on the bottom	ANTRICE	

4. EXISTING CONTRACT & CHANGES

Indoor space requires contract change	Yes ☐	No ☒	
Outdoor space requires contract change	Yes ☐	No ☒	
Cable routing requires contract change	Yes ☐	No ☒	
Power cabling requires contract change	Yes ☐	No ☒	
Indoor space requires studies & license change	Yes ☐	No ☒	
Outdoor space requires studies & license change	Yes ☐	No ☒	
Cable routing requires studies & license change	Yes ☐	No ☒	
Power cabling requires studies & license change	Yes ☐	No ☒	

Other Remarks:	
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5. POWER SUPPLY INFORMATION

Power availability:	YES					
Voltage-measurements (PLC display):	L1(V)	-	L2(V)	-	L3(V)	-
Amperage-measurements (PLC display, without A/C):	I1(A)	-	I2(A)		I3(A)	-
Amperage-measurements (PLC display, with A/C):	I1(A)	-	I2(A)	-	I3(A)	-
Outdoor mini shelter: 32A available breaker in LDB (5x6 mm ² AC Cable)	N/A					
1X16A available breakers in indoor Power System	NO					
1X32A available breakers in indoor Power System	NO					
2X63A available breakers in indoor Power System	Yes					
Power counter exist:	Yes					
Main AC board exist:	Yes					
Breaker value in BMPT:	N/A					
Surge arrestors existence:	Yes					
Type and length of power connection cable for BBU	Cu 2x2.5mm ² - 5m					
Type and length of power connection shielded cable Al 6X25 mm ² if needed:	-					
Type and length of power connection shielded cable Al 6X35 mm ² if needed:	-					
Type and length of AC power connection cable 5X6 mm ² for mini shelter if needed:	-					
Type and length of DC power from PSU to PDU Al 2x35 mm ² if needed:	-					
CB/PDU/2 Sections (if needed):	-					
CB/PDU/3 Sections (if needed):	-					
PDU indoor (if needed):	YES					
Boards grounding - secured:	YES					
Boards waterproofed:	YES					

Other Remarks:	
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6. POWER PLANT and BATTERY INFORMATION

Number of units	Unit 1 ☒	Unit 2 ☐
Type	300A ☐ ☐ 600A ☐ Other ☒	300A ☐ ☐ 600A ☐ Other ☒
Nr./capacity[A] of rectifier modules	4	
DC Load Amperage(displayed) [A]	50	
Battery capacity [Ah]	152Ah	
Battery type/number	12MVR155L/12	

Other Remarks:	
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7. AIR CONDITIONING INFORMATION

Temperature [°C]	Internal: -	External:-
Number of units	Unit 1 ☒	Unit 2 ☐
Type	Free Cooling ☐ Duct ☒ Split ☐	Free Cooling ☐ Duct ☐ Split ☐
Technical specifications from external unit label		
Cooling capacity [BTU]	9.000 ☐ 12.000 ☐ ☒ 18.000 ☐ 24.000 ☐ Other ☐	9.000 ☐ 12.000 ☐ ☐ 18.000 ☐ 24.000 ☐ Other ☐



Start meter	Compressor: - Evap. Fan:- Heather: -	Compressor: Evap. Fan: Heather:
Work time meter [h]	Compressor: - Evap. Fan: - Heather: -	Compressor: Evap. Fan: Heather:
Alarms outputs	Very high temp ☐ Very low temp ☐	Very high temp ☐ Very low temp ☐

Other Remarks:	
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8. NEW INSTALLATION INFORMATION

Common: number of buss with free holes	YES
Common: Available space on the existing cable tray	YES
Indoor equipment: Existing space for ILP mounting	N/A
Indoor equipment: Existing space for Radio Indoor equipment mounting	N/A
Indoor equipment: Existing space for Indoor Concentrator equipment mounting	N/A
Indoor equipment: Existing space for DC PDU mounting	YES
Indoor equipment: Available holes in FIMO	YES
Outdoor equipment: Existing space on the existing base frame for mini shelter mounting	N/A
Outdoor equipment: Existing outdoor transmission cabinet	N/A
Outdoor equipment: Existing space for outdoor Concentrator mounting (proposal)	N/A
Outdoor equipment: Existing space for RRU mounting (proposal)	YES

Other Remarks:	
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9. EXISTING TELECOM EQUIPMENT & INFRASTRUCTURE

a. General information

Equipment type:	Indoor ☒	Outdoor ☐	
Number of RF antennas:	8		
Number of MW links	4		
Nr. of existing RBS cabinets	0		
MW existing RL cabinet	Indoor ☒	Outdoor ☐	
Power cabinet exist (BBS):	Yes ☐	No ☒	
Existing cable ladder availability:	Yes ☒	No ☐	
Existing cable entry availability:	Yes ☒	No ☐	
Air condition existence & operation	Yes ☒	No ☐	
Grounding protection existence:	Yes ☒	No ☐	
Lightning protection existence:	Yes ☒	No ☐	
Installation of RF & IF cables requires special machinery (e.g. crane)	Yes ☐	No ☒	



b. Existing Masts

	Height	Length	poles/mast	Cell_id on the mast	installation readiness
1					
2					
3					
4					

c. Existing Antenna Poles

	Height	Length	Cell_id	Corner/Tower	Obstacles	installation readiness
1	50.0m	2x3m	RF Q,K; RF U		No	Yes
2	50.0m	2x3m	RF R,L; RF V		No	Yes
3	50.0m	2x3m	RF S,M; RF W		No	Yes
4	50.0m	2x3m	RF N, RF Z,T		No	Yes
5						

d. Existing MW Poles

	Height	Length	Hop id	Corner/Tower	Far end	Obstacles	installation readiness
1	+21.0m	2m	-				
2	+35.0m	2m					
3	+37.5m	2m					
4	+34.0m	2m					
5							
6							

Remarks:	
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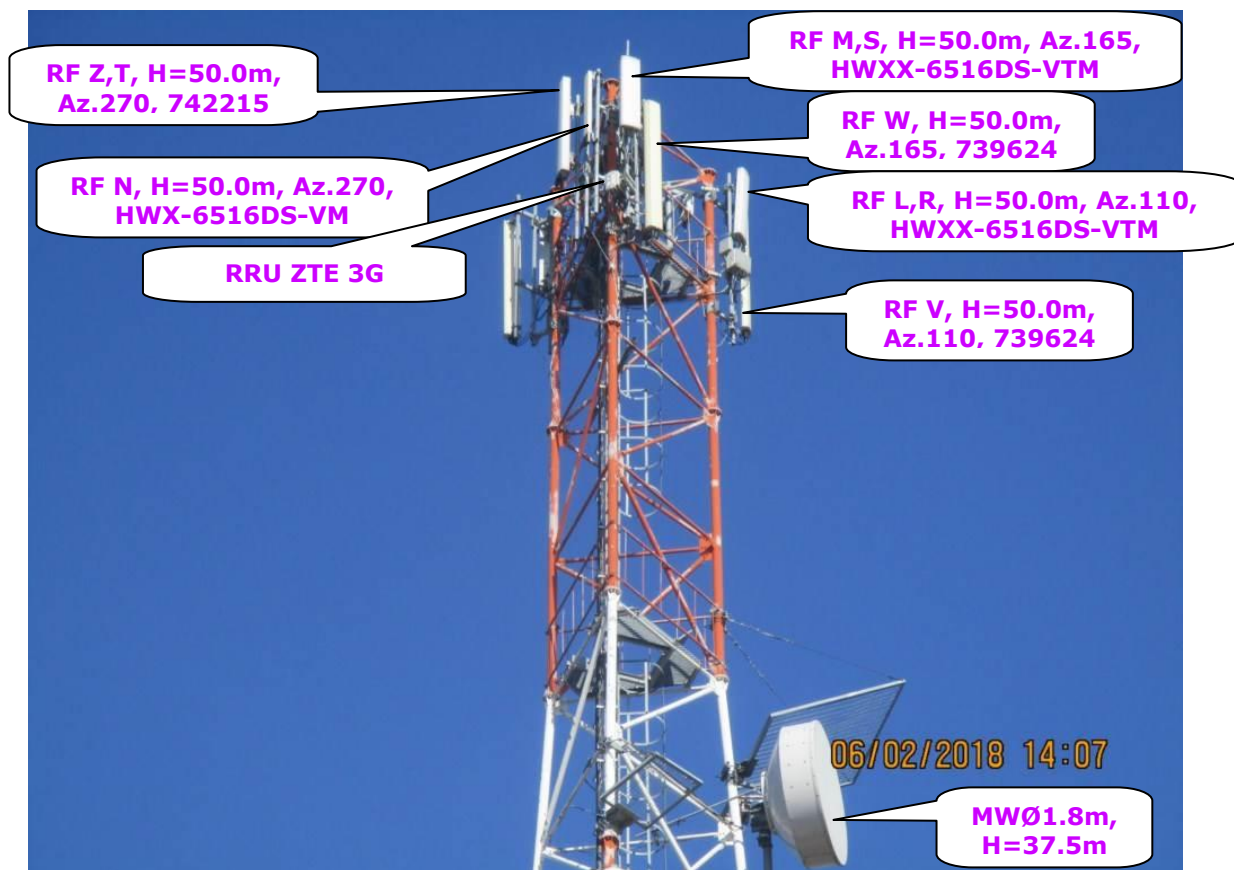
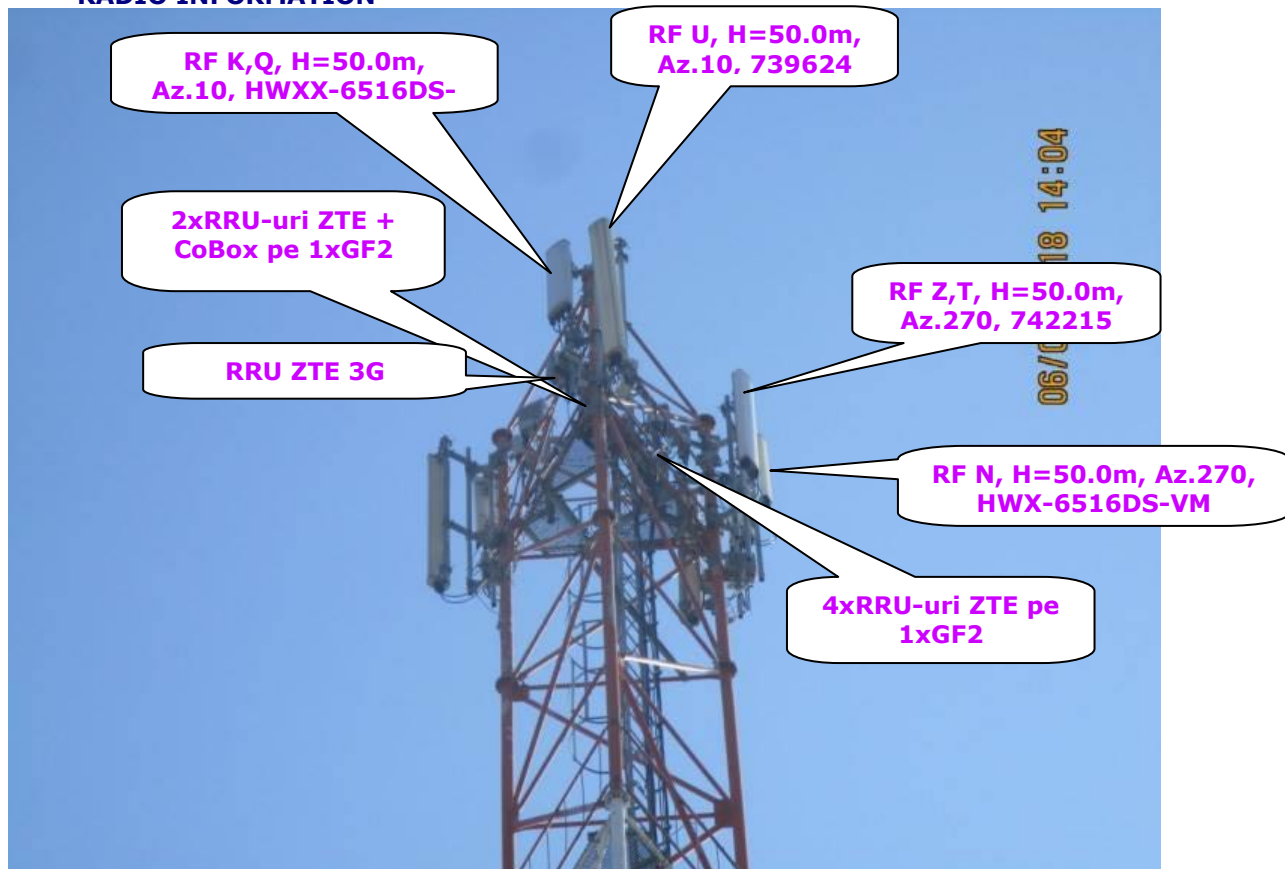
10. ANALYSIS LOADING DATA

LOAD TYPE	DIAMETER (mm)	POSITION (m)	NUMBER
M/W LINK	1200	+21.0m	1
M/W LINK	300	+35.0m	
M/W LINK	1800	+37.5m	
M/W LINK	600	+34.0m	
M/W LINK			
M/W LINK			

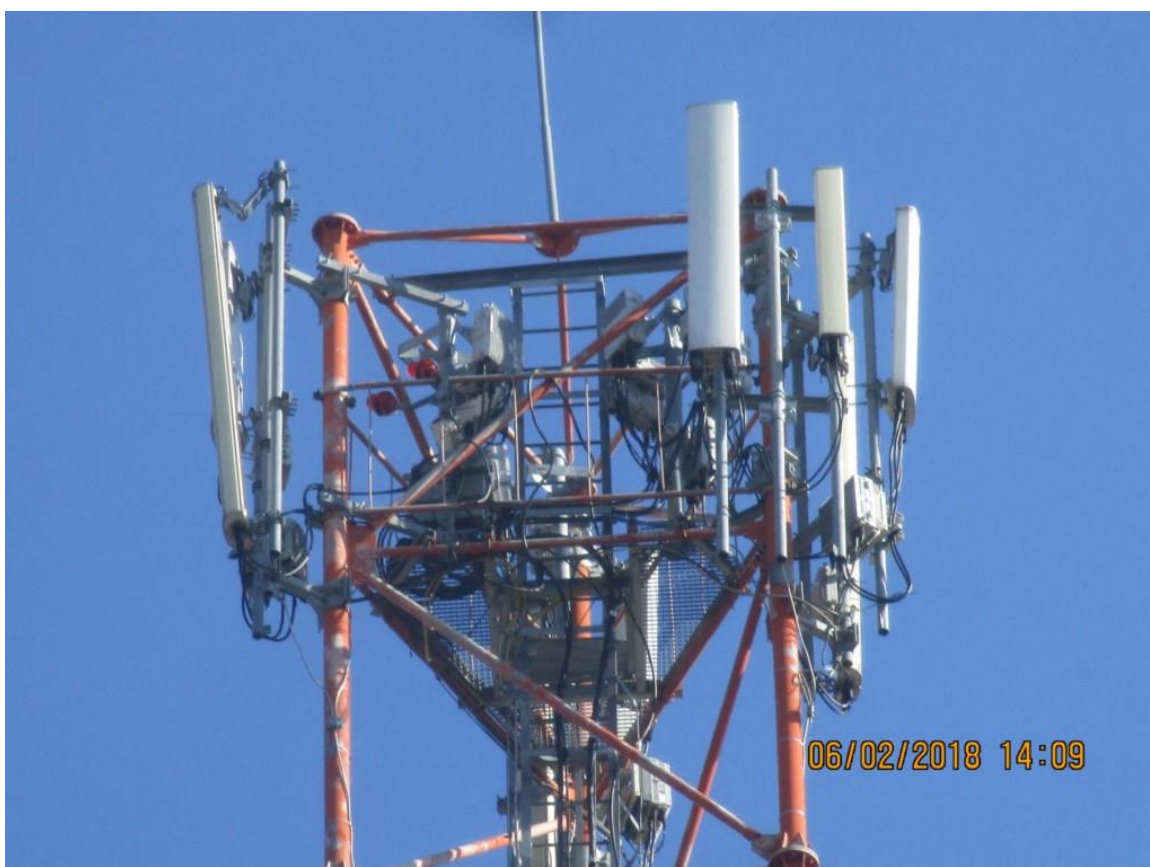
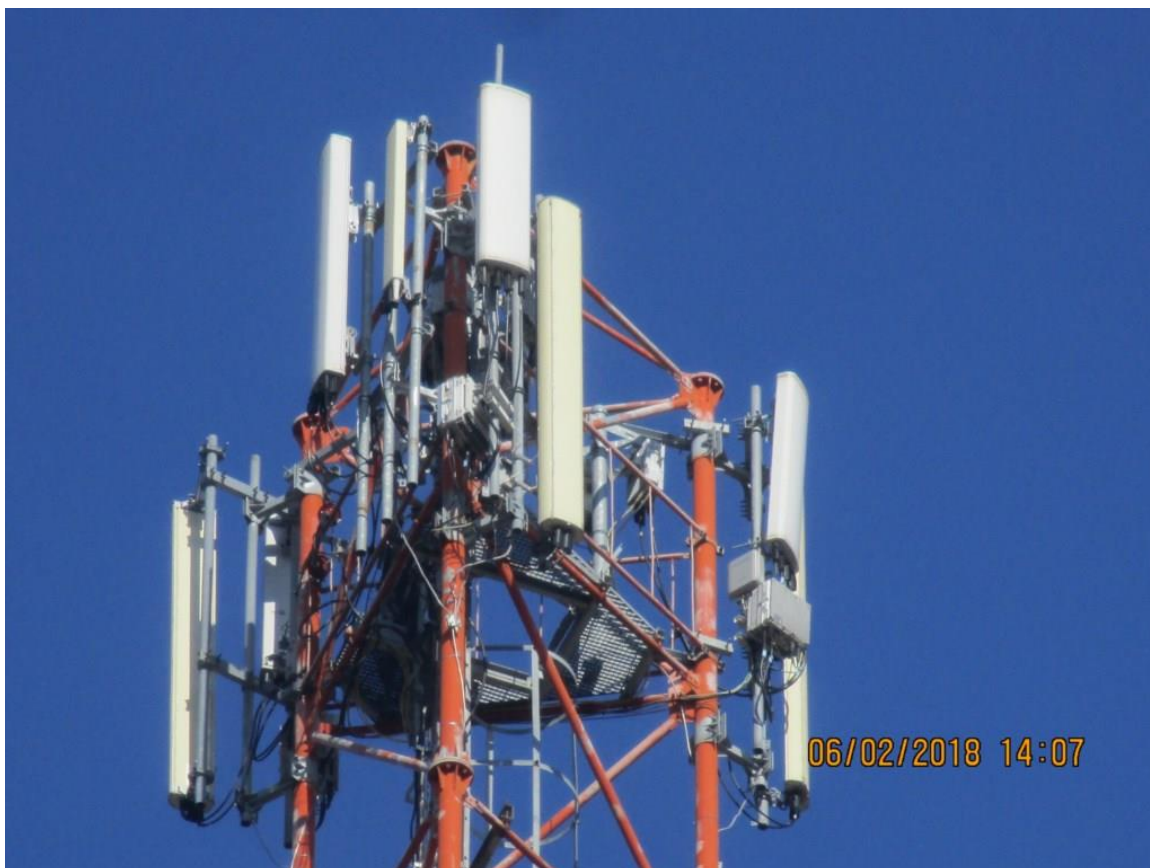
**11. EXISTING LAYOUT(S):
GENERAL VIEW OF STRUCTURE**



RADIO INFORMATION













Modernization Telekom Mobile



Sectorul 1







Sectorul 2



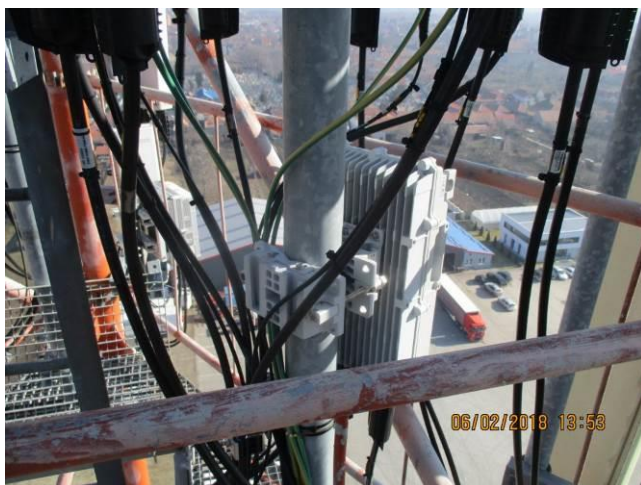




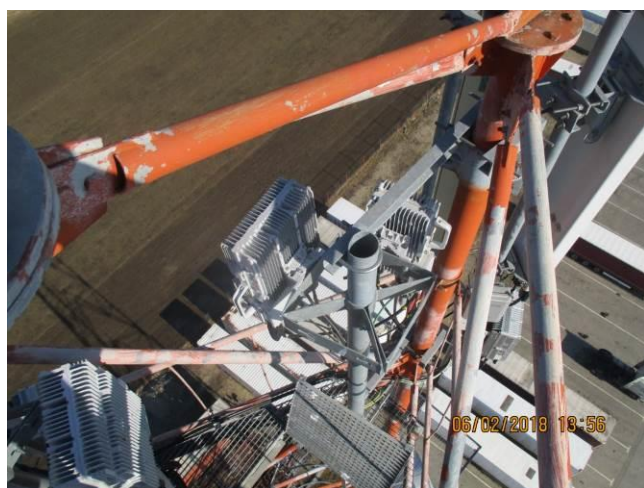
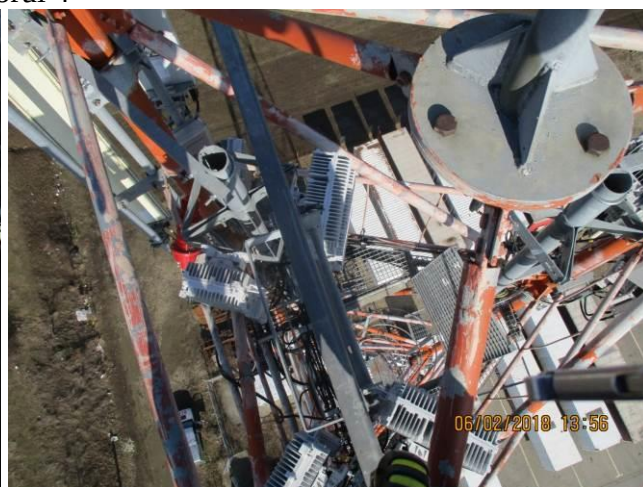
Sectorul 3



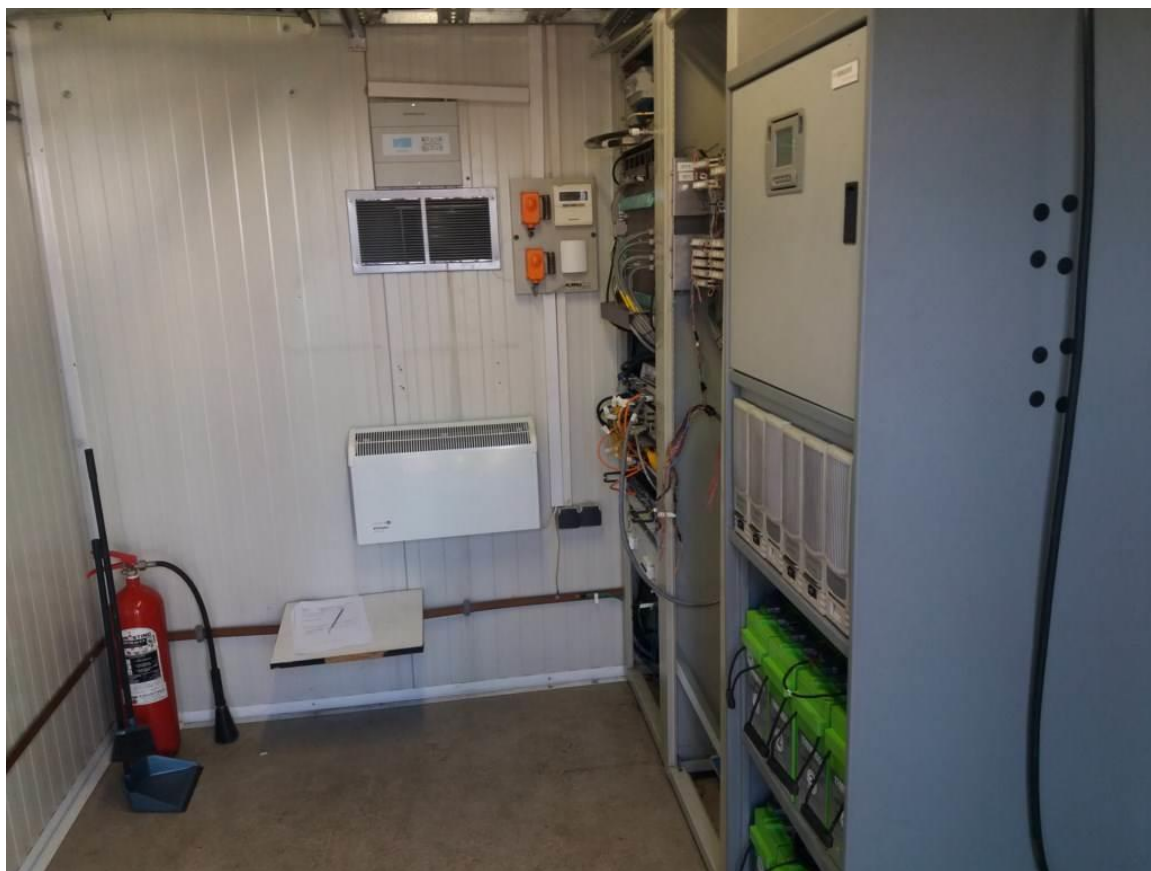




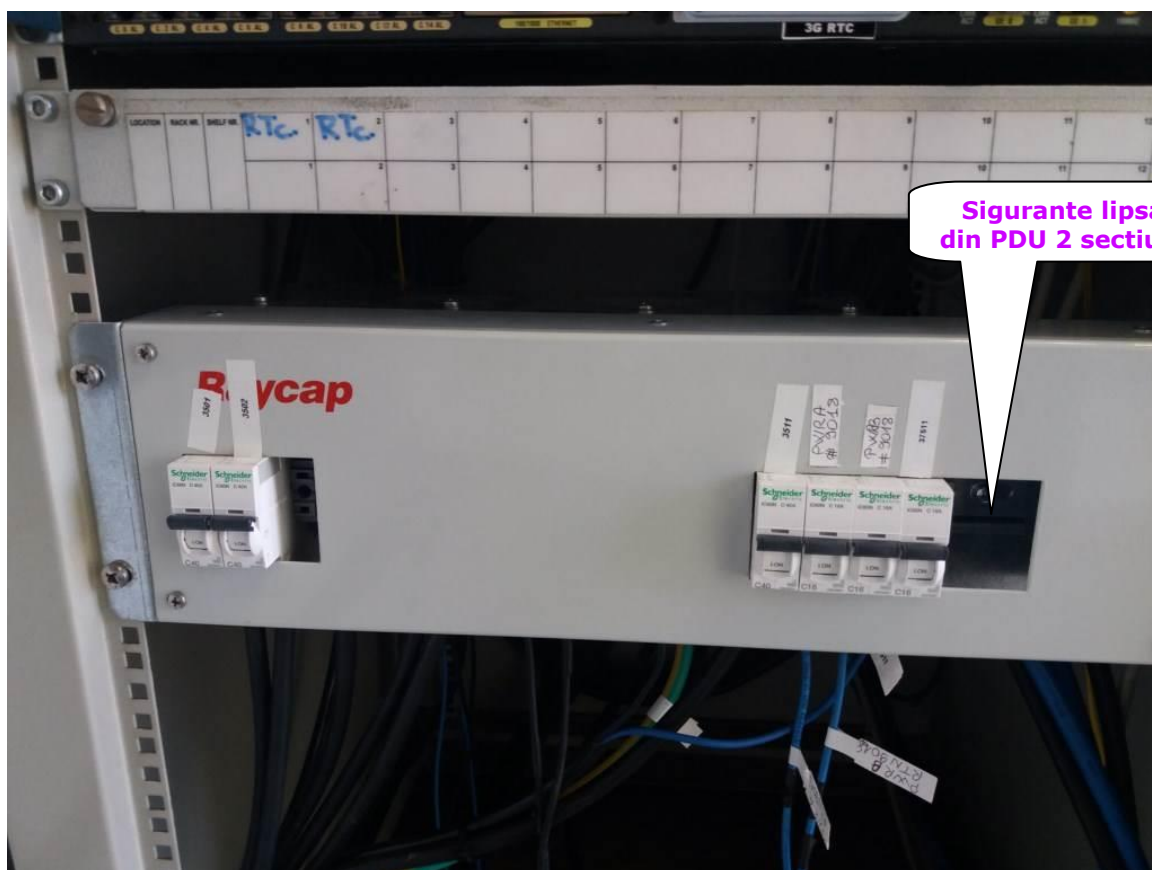
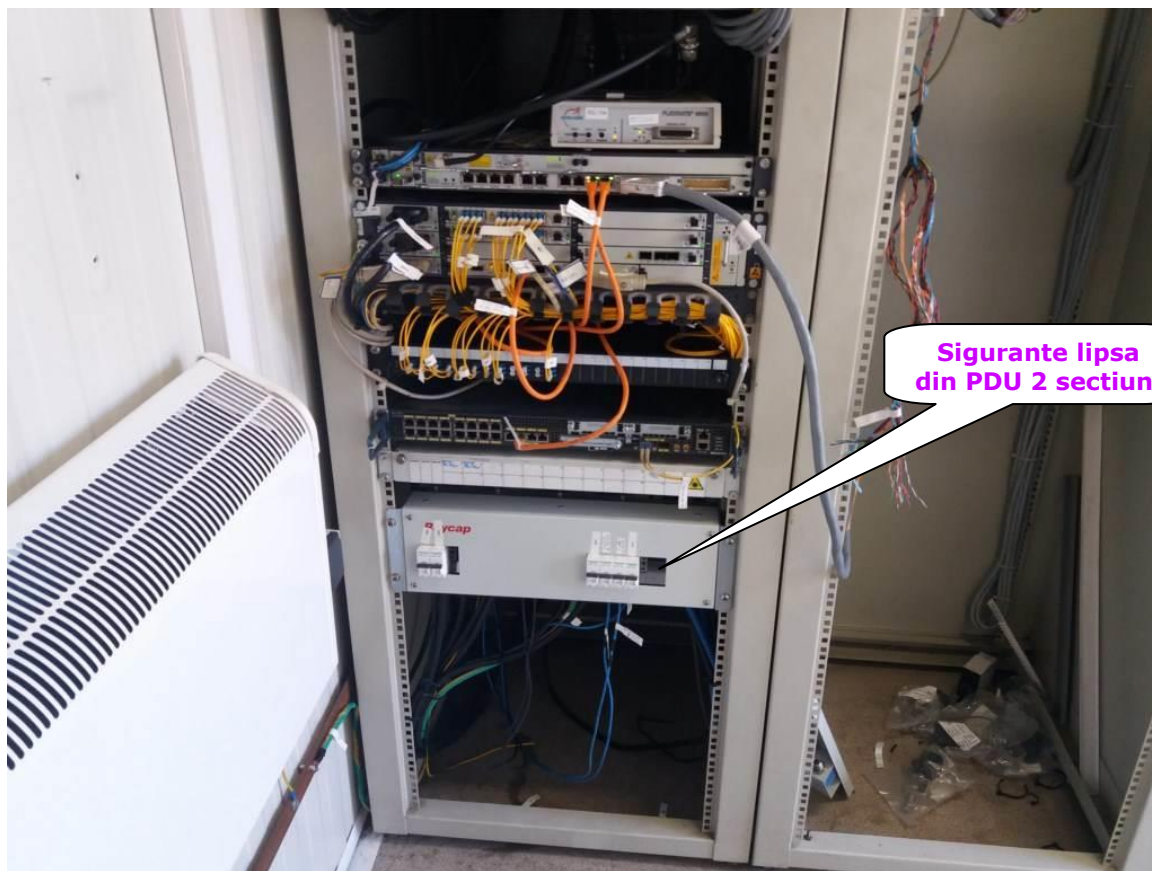
Sectorul 4

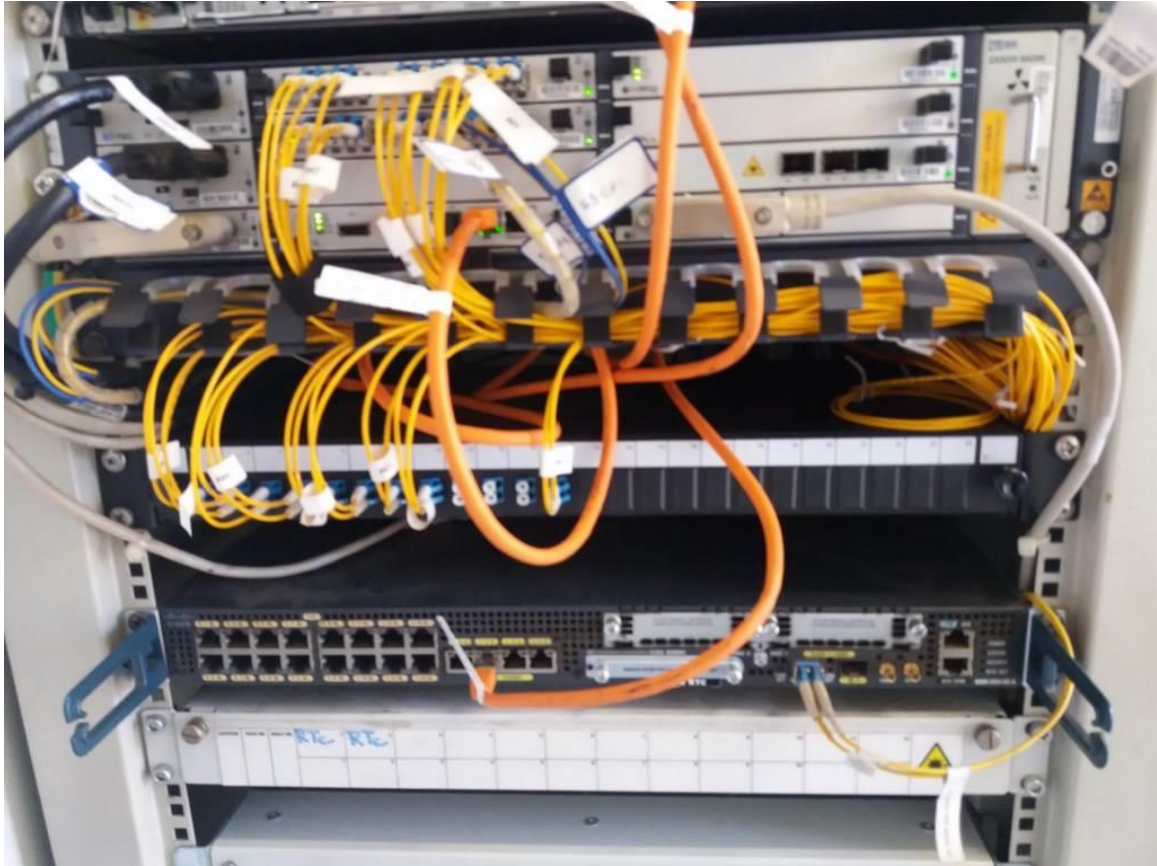


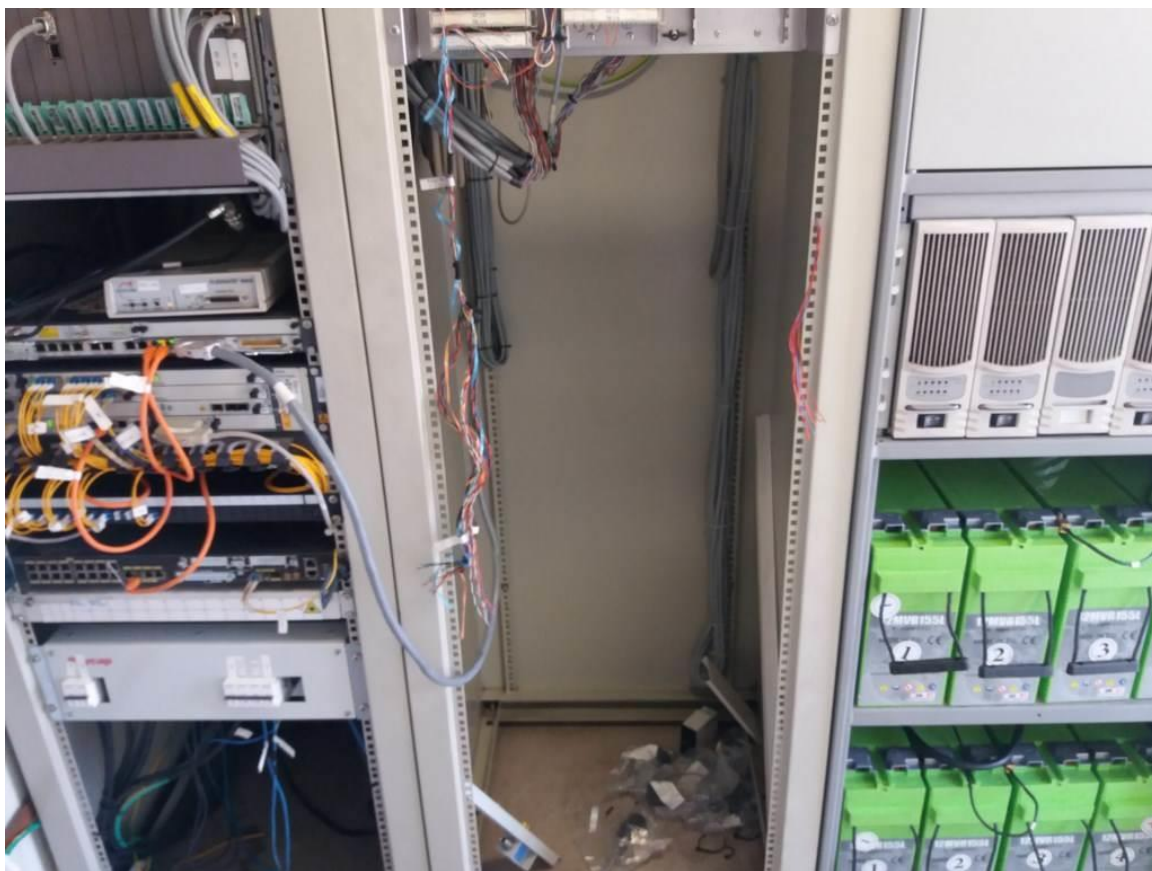


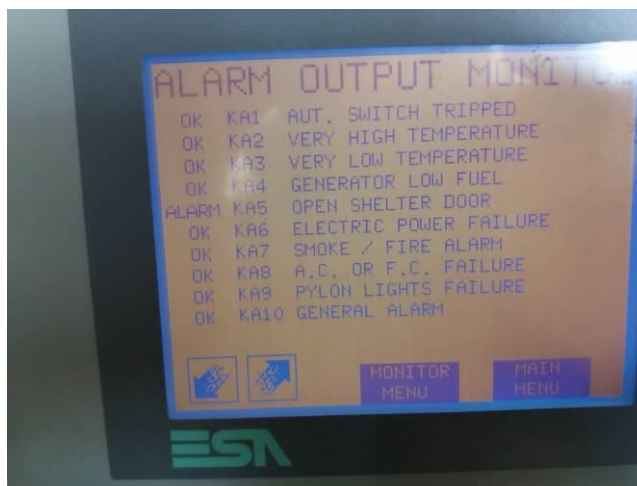


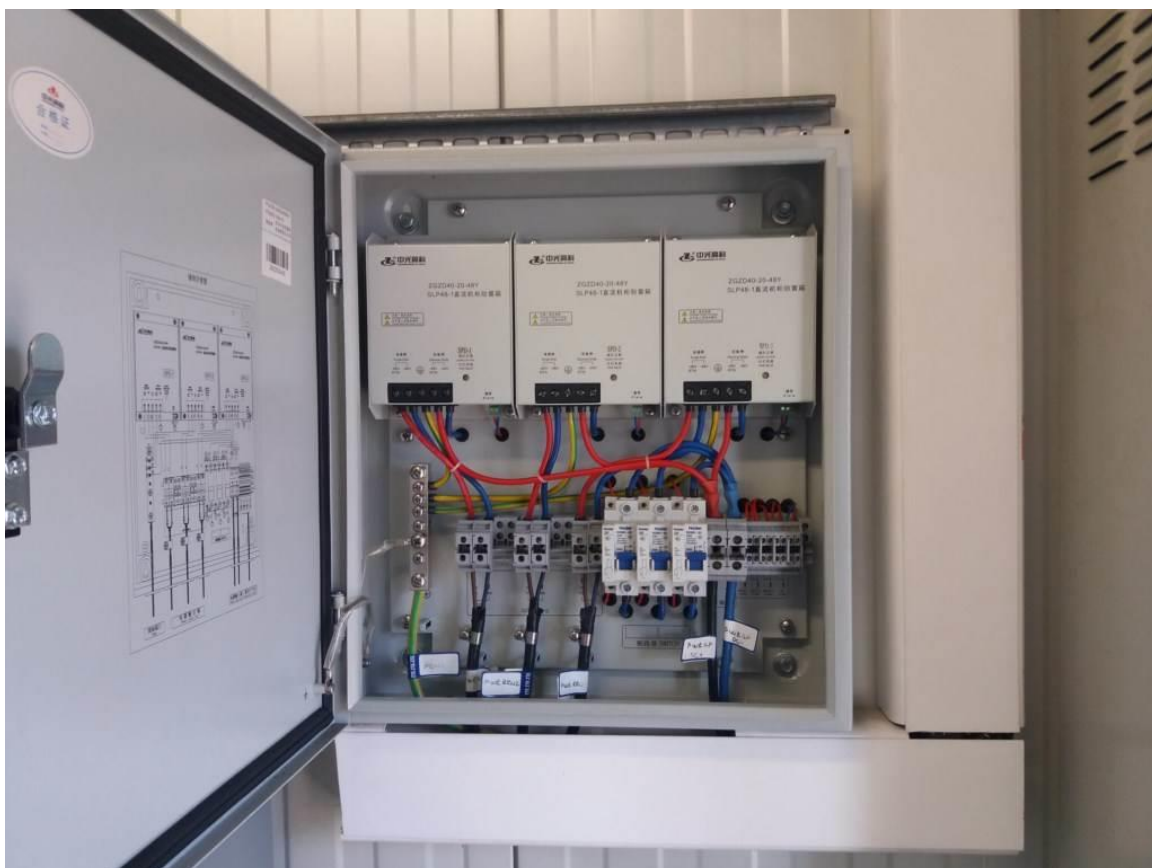














12. PROPOSED INFRASTRUCTURE & EQUIPMENT SOLUTION

a. Indoor cabinets

Dimensions of existing room:	3.8x2.1m
Space availability for indoor equipment:	YES
Expansion of existing equipment room:	NO
Shelter needed:	NO
Shelter concrete base needed:	NO
Space availability for new shelter positioning:	N/A
AC power extension/change:	NO
Main grounding bus bar existence:	YES
Water proofing of the room needs restoration:	NO
Internal Lighting restoration:	NO
Wall painting needed:	NO
Antistatic floor addition:	NO
Fire alarm system expansion:	NO
Air Conditioning (A/C) expansion/replacement:	NO
Nr./capacity[A] of rectifier modules	3x50A;
Security Lights board:	NO
Plastic trays for cables expansion :	NO
Internal ladder for the feeders availability:	YES
Cable entry expansion:	NO
Other Remarks:	-

b. Outdoor cabinets

New metal base needed:	N/A
Dimensions of new metal base:	N/A
Secure of metal base on floor:	N/A
Grounding of base/Earthing for equipments:	N/A
AC power supply availability:	N/A
Needed properly holes on base:	N/A
Clearances around cabinets:	N/A
Other Remarks:	-

c. Proposed New Masts

	Height	Length	poles/mast	Cell_id on the mast	Position
1					
2					
3					
4					

d. New Antenna Poles

	Height	Length	Cell_id	Corner/Tower	Obstacles	installation readiness
1						
2						
3						
4						

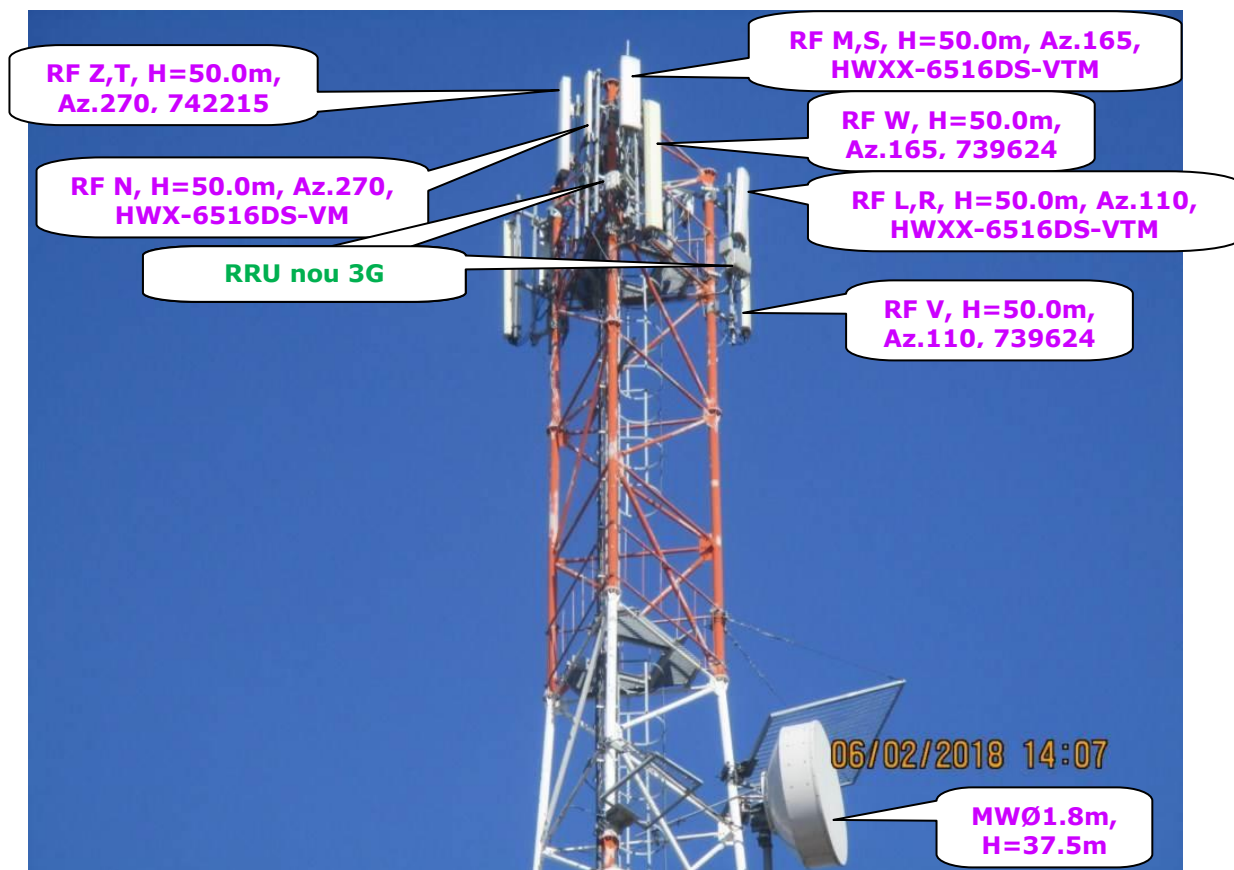
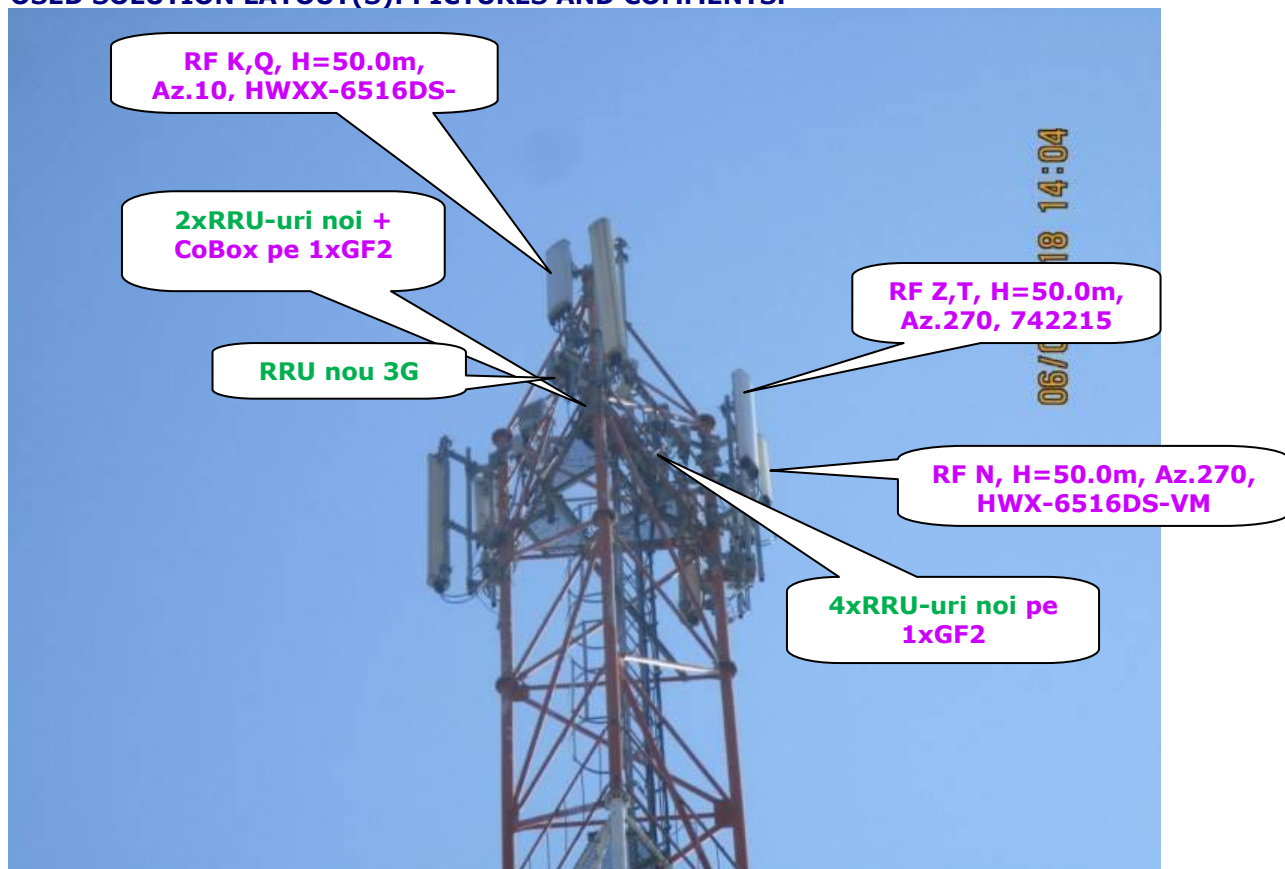
e. New MW Poles

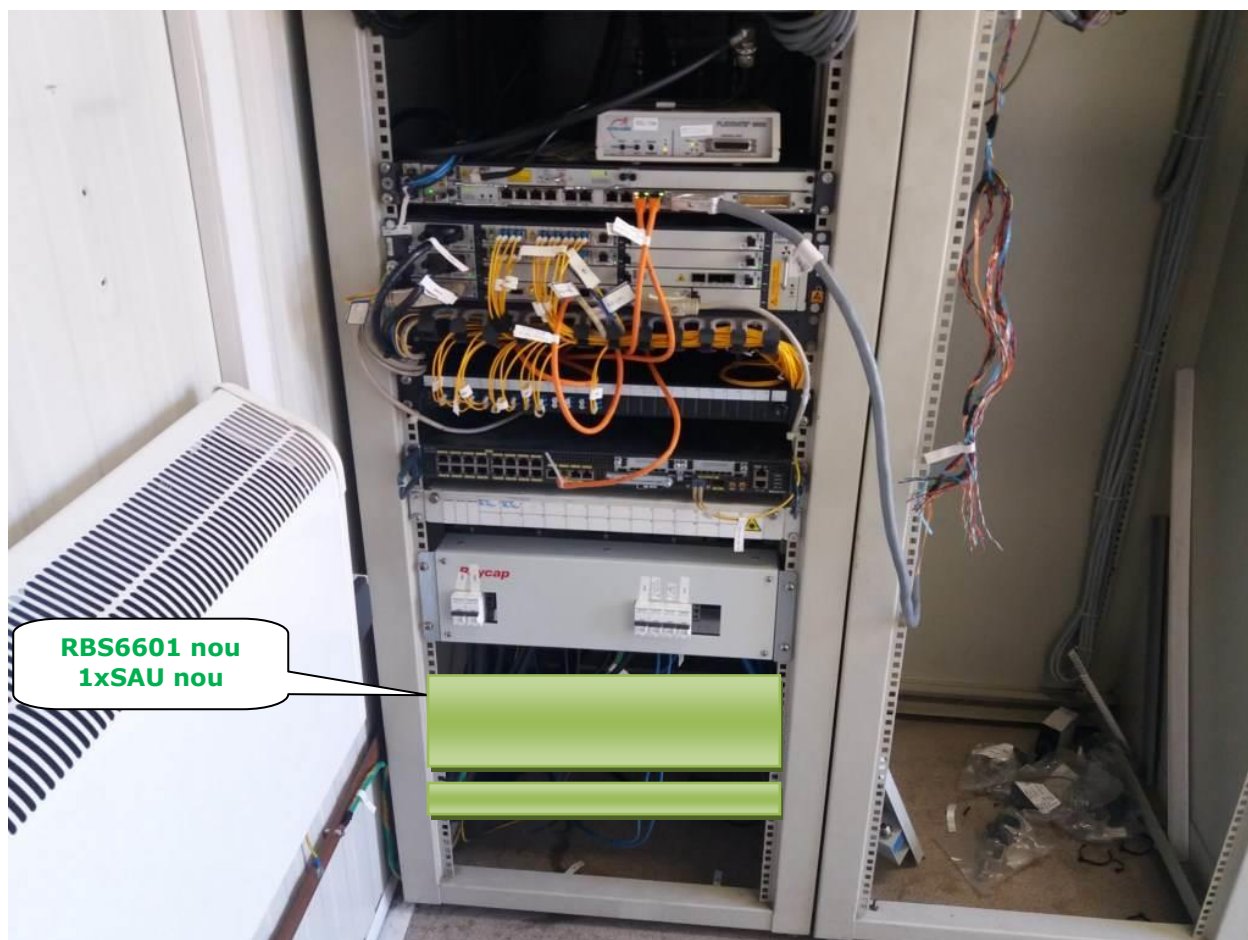
	Height	Length	Hop id	Corner/Tower	Far end	Obstacles	installation readiness
1							
2							
3							



Proposed corrective works:	Reconfigurarea site-ului CJ332 SEBES_IND care sa includa urmatoarele elemente: - se vor pastra antenele existente (3xHWXX-6516DS-VTM, 1xHWX-6516DS-VTM, 3x739624, 1xDBXLH-6565-VTM); - se vor instala 8xRRU-uri noi(4xGSM900 si 4xRRU-uri noi LTE1800) pe cei 3 suporti GF2 existenti; - Pe tevile antenelor RF UMTS se vor instala 4xRRU-uri noi UMTS2100; - in rack existent se va instala 1xSAU nou si 1xRBS6601 nou echipat cu BB5216 si BB5212; - RRU-urile noi se vor alimenta din sigurante existente din CoBox existent cu cabluri DC CU2x6mmp – 12x5m; - RBS6601 nou se va alimenta din 1x16A noua (care se va instala in PDU 2 sectiuni existent); - Dupa swap, se vor dezinstala RRU-urile ZTE impreuna cu FO/DC aferente si echipamentele din shelter; Lungimi cabluri: Jumperi 1/2" – 8x2m + 16x3m; FO – 12x5m + patch FO 12x2m; DC CU2x6mmp – 12x5m; DC alimentare RBS6601 – 5m;
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13. PROPOSED SOLUTION LAYOUT(S): PICTURES AND COMMENTS:





14. Detailed site information/Picture:

- Pictures with Metallic existing structure; further reuse to be acknowledge by Telekom;
- Pictures with existing Cable tray to decide if additional feeders can be added/ if case